Working Together

The Mobile Asphalt Lab encourages technical interaction among transportation personnel and on-site field testing benefits both FHWA and State and local agencies. One of the Mobile Asphalt Lab's greatest assets is that it helps introduce new technology and materials into real-world construction. On-site activities can include:

- Validating equipment
- Evaluating asphalt mixes in field
- Introducing and implementing new performance-related specification standards
- Presenting materials at industry conferences, universities, and State agencies
- Evaluating new materials and pavement testing methodologies
- Publicizing materials in journals and conference proceedings

QC/QA testing at FHWA Accelerated Load Facility

Mix preparation conducted inside mobile laboratory

Contacts

If you are interested in the Mobile Asphalt Lab's services, contact the FHWA Resource Center or your State's FHWA Division Office. To reach the mobile asphalt laboratory staff directly, contact:

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or
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Who to look for?

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FHWA Mobile Asphalt Pavement Mixture Laboratory

Bringing Asphalt Pavement Technology Development to Your Doorstep

U.S. Department of Transportation
Federal Highway Administration

Purpose and Goals

The Federal Highway Administration's (FHWA) Mobile Asphalt Pavement Mixture Laboratory (Mobile Asphalt Lab) is making it simpler for researchers to gather data, test, and evaluate new technology development. To implement new technology, experienced technicians and engineers travel with the Mobile Asphalt Lab to project sites across the country. Through the Mobile Asphalt Lab, FHWA aims to:

- Develop, test, evaluate, and implement Superpave® performance prediction tests on a national scale
- Work with transportation partners to resolve national issues related to implementation of new pavement technology
- Develop and support validation of performance-related construction specifications

Development Activities

Improved Specifications

The Mobile Asphalt Lab helps refine performance-related specifications (PRS), such as through fine-tuning test protocols and quality control/quality assurance (QC/QA) procedures.

Successfully resolve national issues related to implementation of new pavement technology

New equipment is available to perform "shadow testing" validation of mix and aggregates at plants, laboratories, and construction sites, and the test data collected can helps to evaluate test repeatability and to refine test procedures.

Study of effects of lime in asphalt mixtures on performance

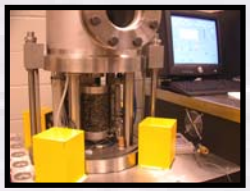
The mobility of the laboratory facilitates data collection, testing, and evaluation at project sites.

Advanced Performance Testing

To predict performance, the Mobile Asphalt Lab evaluates new products. For example, field validation is conducted to identify and assess inputs to the 2002 Pavement Design Guide.

The lab is equipped with cutting-edge performance-testing equipment, such as the Superpave performance (triaxial shear) tester that measures the dynamic modulus of an asphalt mix, and the aggregate video imaging system that determines fine and coarse aggregate shape, texture, and angularity. The Mobile Asphalt Lab also contains a specimen fabrication equipment for the Superpave performance test.

Superpave performance test



Aggregate Imaging System

Conventional Testing

In the Mobile Asphalt Lab, technicians can conduct various conventional tests for asphalt pavement mix design including:

- Asphalt content by both methods
- Short- and long-term aging of hot-mix asphalt (HMA)
- HMA density by gyratory compactor
- Aggregate consensus properties
- Percentage of air voids in a compacted mix
- Apparent specific gravity, percent absorption (SSDetect, Corelok, T84)
- In-place HMA density by nuclear method
- Aggregate standard tests

Introduce critical input into alternative contracting methods and techniques